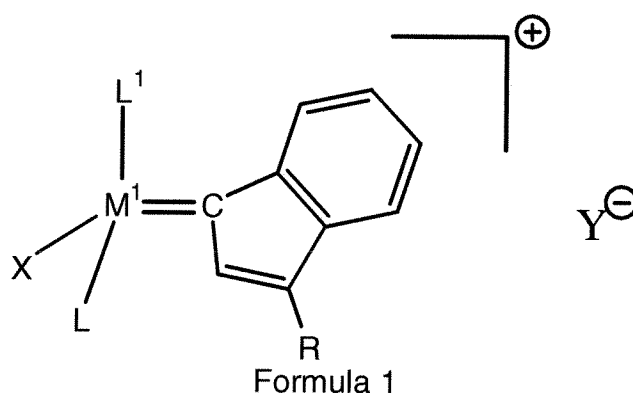


Amendments to the Claims:

This listing of claims will replace all prior versions and listings of claims in the application.

1. (Previously Presented) A process for the preparation of an, optionally hydrogenated, nitrile rubber comprising the steps of
- a) reacting a nitrile rubber in the presence at least one compound selected from the group consisting of compounds of the general formula I,



wherein:

M<sup>1</sup> is Os or Ru;

R is hydrogen or a hydrocarbon selected from the group consisting of C<sub>2</sub>-C<sub>20</sub> alkenyl, C<sub>2</sub>-C<sub>20</sub> alkynyl, C<sub>1</sub>-C<sub>20</sub> alkyl, aryl, C<sub>1</sub>-C<sub>20</sub> carboxylate, C<sub>1</sub>-C<sub>20</sub> alkoxy, C<sub>2</sub>-C<sub>20</sub> alkenyloxy, C<sub>2</sub>-C<sub>20</sub> alkynyloxy, aryloxy, C<sub>2</sub>-C<sub>20</sub> alkoxycarbonyl, C<sub>1</sub>-C<sub>20</sub> alkylthio, C<sub>1</sub>-C<sub>20</sub> alkylsulfonyl and C<sub>1</sub>-C<sub>20</sub> alkylsulfinyl;

X is selected from any anionic ligand; and

L<sup>1</sup> is a neutral  $\pi$ -bonded ligand, preferably but not limited to arene, substituted arene, heteroarene, independent of whether they are mono- or polycyclic;

L is a ligand selected from the group consisting of phosphines, sulfonated phosphines, fluorinated phosphines, functionalized phosphines bearing up to three

aminoalkyl-, ammoniumalkyl-, alkoxyalkyl-,  
alkoxycarbonylalkyl-, hydroxycarbonylalkyl-, hydroxyalkyl-  
or ketoalkyl- groups, phosphites, phosphinites,  
phosphonites, phosphinamines, arsines, stibenes, ethers,  
amines, amides, imines, sulfoxides, thioethers and  
pyridines;

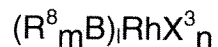
Y<sup>-</sup> is a non-coordinating anion; and optionally further in the  
presence of at least one co-olefin and

for the hydrogenated nitrile polymer

b) hydrogenating the product of step a).

2. (Original) A process according to claim 1 wherein the nitrile rubber is hydrogenated and the hydrogenation is performed under homogeneous catalytic conditions.
3. (Original) A process according to claim 2 wherein the hydrogenation is carried out *in situ*; that is, without first isolating the product of step a).
4. (Original) A process according to any of claims 1-3 wherein L is a trialkylphosphine, L<sup>1</sup> is 1-methyl-4-iso-propylphenyl, X is a chloride ion, R is phenyl and M is ruthenium.
5. (Previously Presented) A process according to claim 1 wherein the ratio of compound to nitrile rubber is in the range of from 0.005 to 5.
6. (Previously Presented) A process according to claim 1 when conducted in the presence of at least one co-olefin.
7. (Previously Presented) A process according to claim 1 wherein the process is carried out in an inert solvent selected from the group consisting of monochlorobenzene, dichloromethane, benzene, toluene, tetrahydrofuran and cyclohexane.

8. (Previously Presented) A process according to claim 1 wherein the nitrile rubber is hydrogenated and the hydrogenation is carried out using a catalyst of formula :



wherein each  $R^8$  is independently selected from the group consisting of a  $C_1$ - $C_8$ -alkyl group, a  $C_4$ - $C_8$ -cycloalkyl group, a  $C_6$ - $C_{15}$ -aryl group and a  $C_7$ - $C_{15}$ -aralkyl group;

B is selected from the group consisting of phosphorus, arsenic, sulfur, and a sulfoxide group ( $S=O$ ) ;

$X^3$  is selected from the group consisting of hydrogen and an anion;  
and

l is 2, 3 or 4, m is 2 or 3 and n is 1, 2 or 3.

9. (Original) A process according to claim 8 wherein the hydrogenation catalyst is  $(PPh_3)_3RhCl$ .